Methods: Between 2006 and 2009, 108 patients underwent syndesmotic screw fixation following ankle injuries. Of these 57 patients (with radiographs after the screw removal) were included in our study. Twenty eight patients (Group A) had the syndesmotic screw removed before 8 weeks. The remaining 29 patients (Group B) had the screws removed after 8 weeks. The radiographs were assessed by two observers independently for tibiofibular overlap in both the periods after surgical fixation and after screw removal.
Results: The mean age of the patients was 39 in Group A and 45 in Group B (p=0.16). Forty six percent are males in Group A compared to 60% in Group A (p=0.93). Twenty eight patients (96.6%) in Group B had good tibiofibular overlap compared to 22 patients (79%) in Group A. This is statistically significant at the conventional level of 0.05, using a 2-sided test.
Conclusion: Our study indicates that Group B had a better outcome compared to Group A. We conclude that based on the radiological outcome, optimal timing for syndesmotic screw removal is more than eight weeks.

0726: RADIOGRAPHIC ASSESSMENT OF THE THUMB

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Introduction: In addition to elective indications such as carpometacarpal joint osteoarthritis, a plain radiograph is commonly the initial imaging modality following acute trauma to the thumb. Adequacy is dependent upon the use of correct radiographic projections; in turn dependant on accurate information provided in the clinical request.
Aim: To compare a series of anterior-posterior (AP) thumb radiographs taken in our hospital against the gold standard 'Roberts' thumb view.
Method: A retrospective analysis of 100 consecutive thumb radiographs was made by two independent assessors (NP/GP) for quality of request and adequacy of imaging. Differing opinions were arbitrated by an Orthopaedic Hand Consultant (GWB).
Results: The male-to-female ratio was 1:0.6. Mean age 43 (range 18-95). Right-thumb=59, Left-thumb=41. Trauma accounted for the majority (60/100). The suspected area of pathology was specified in 64/100 requests; radiographs for the majority of these cases were inadequate (33/64, 51.6%).
Conclusion: AP thumb radiographs within our Trust are inadequate, both in terms of request detail, and views obtained; this can result in misdiagnosis and resultant sub-optimal treatment. An educational programme for requesters and radiographers has been introduced, highlighting the importance of adequate request information and correct positioning. We encourage all surgeons to assess thumb radiograph adequacy locally.

0730: MUSCULOSKELETAL TUMOURS PRESENTING TO A KNEE SERVICE OVER 10 YEARS: A RETROSPECTIVE AUDIT

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Aim: This is a 10 year retrospective audit of musculoskeletal tumours presenting to a district general hospital knee service referred onto the Birmingham Tumour Centre (BTC).
Method: Tumour service correspondence and local patients' case notes were reviewed.
Results: In this time 35, 409 patients were seen in this knee unit (9,565 new patients and 25,844 follow up patients). 20 patients (14 females, 6 males) with average age of 36.4 years (13-67 years) were referred from our service. Referral sources to our service were from: GP 12 (60 %), Accident and Emergency 4 (20%) and other consultants (other speciality or subspecialty) 4 (20%). All were referred onto BTC and upon further investigation 11 patients had malignant conditions and 9 were benign. 9 malignant conditions had urgent major operative intervention. Radiotherapy and chemotherapy was used in 2 patients. 5 of the benign cases required surgery while conservative treatment was used in 4 patients.
Conclusion: Musculoskeletal tumours are rare. Constant vigilance is required to enable early detection & urgent referral to specialist tumour centres which has been shown repeatedly to be the best option for survival and functional outcomes.

0741: ACCURATE LIMB DEFORMITY CALCULATION FOR JUNIOR DOCTORS IN TRAUMA AND ELECTIVE PATIENTS; DO WE HAVE AN ANSWER?

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Aim: Accurate radiological description of injuries in trauma patients is critical for optimum patient care. 4.7% of investigations communicated between junior Doctors and their seniors lack accurate and comprehensive detail(1). Currently, rough angulation and length measurements are performed on the picture archiving and communication systems(PACS). The program TraumaCad™ (Voyanthealth, USA) can assess limb deformities after fractures. TraumaCAD™ is currently used extensively for pre-operative planning. We assessed the potential for using this software in clinical settings.
Method: A medical student assessed 20 radiographs with angulated fractures and 20 pre-operative radiographs of patients awaiting Total-Hip-Replacement. Neck-shaft angle, limb length discrepancy of the arthritic hip (Elective) and fracture angulation in trauma patients were measured using PACS. The calculated deformity was compared with TraumaCAD™ assessment; following a two-hour training session. Results were compared to an orthopaedic trainee trained in TraumaCad™.
Results: On statistical analysis; there was no significant difference between the medical student and Trainee(p-value < 0.05). Deformities calculated using PACS and TraumaCAD™ by the medical student were significantly different after positive correlation analysis.
Conclusions: The medical students' calculation of limb deformity was more accurate after a short training session in TraumaCAD™. This can be a valuable tool in improving junior Doctors' ability to communicate trauma patients' injuries.

0745: REVISION ACL RECONSTRUCTION: A PROSPECTIVE STUDY ASSESSING THE FUNCTIONAL AND OBJECTIVE OUTCOMES AND COMPARING COMPLICATION RATES WITH PRIMARY ACL RECONSTRUCTIONS

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Aim: Single surgeon prospective study assessing the functional and objective outcomes after revision ACL reconstruction and comparing re-rupture rate and complication rate with his primary reconstructions.
Methods: Lysholm, KOOS, IKDC scores, AP laxity (at 30° knee flexion) and complications were collected prospectively on all the patients over a period of 10 years.
Results: Average follow up was 21.2 months (range 12-60 months). 24 patients (21 males, 3 females) had a mean age of 31.2 years (range 17-50). 3 patients ruptured their revision (12.5 %) compared to 10 of 422 primaries (2.36%) ($p<0.01$).
Post-operatively there was improvement in Lysholm, KOOS symptoms, KOOS ADL, KOOS QOL and IKDC scores ($p<0.02$). Rolimeter mean preoperative 30° Δ value (difference between operated and contralateral knee AP laxity) was 16 mm which improved at 12 months post-operative to 1.8 mm and later increased to 5 mm by latest follow up.
However no significant improvement was detected in KOOS pain, KOOS sports scores ($p>0.05$). Complications occurred in 29.16% (7 patients) compared to 13.5% (57 patients) in the primaries. ($p<0.05$)
Conclusion: Revision ACL reconstruction surgery remains a challenging problem. Improved function can be expected after revision ACL surgery but there are significantly higher risks of re-rupture and complications.

0767: IMPROVING THE MANAGEMENT OF PRESSURE ULCER CARE IN FRACTURE NECK OF FEMUR PATIENTS

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Introduction: Pressure ulcers cause significant morbidity and mortality. Accordingly pressure area care is one of the six national standards for fracture neck of femur care (NoF) patients with emphasis on prevention and assessment at the earliest opportunity.
Method: We reviewed the management of 27 NoF patients admitted between January-February 2010 assessing them against 11 gold standard criteria.
After the audit, the following interventions were carried out: presentation at orthopaedic clinical audit and ward managers meetings, four education